

Reitetek, Øving 7, Vegard E. Jøvell

- Oppg. 1a) Reaksjonene her flere trinns
adsorpsjon, reaksjon, desorpsjon
→ ikke elementær

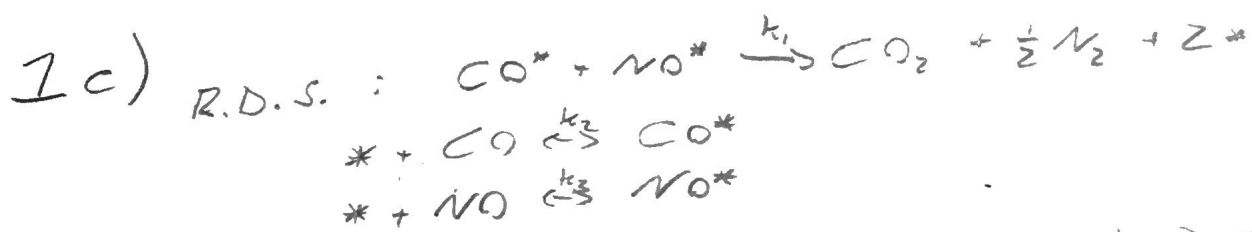
1b) $F_A - F_{A0} + \Gamma_A W = 0$ Antas $\frac{d\Phi_v}{dW} = 0$
 $- \Gamma_A W = F_A - F_{A0} = \Phi_v (C_A - C_{A0})$
 $- \Gamma_A = \Phi_v \frac{dC_A}{dW}$

Dannelseshastigheten til CO_2 blir da

$$\Gamma_{CO_2} = 5 \frac{L}{min} \cdot \frac{2 \cdot 10^{-5} \frac{mol}{L}}{10 g}$$

$$\Gamma_{CO_2} = 10^{-5} \frac{mol}{g \cdot min}$$

Forbruk av NO : $\Gamma_{NO} = \Gamma_{CO_2} = 10^{-5} \frac{mol}{g \cdot min}$



$$\Gamma_2 = k_2^+ P_{CO} C_* - k_2^- C_{CO^*} = 0 \rightarrow C_{CO^*} = k_2 P_{CO} C_*$$

$$\Gamma_3 = k_3^+ P_{NO} C_* - k_3^- C_{NO^*} = 0 \rightarrow C_{NO^*} = k_3 P_{NO} C_*$$

$$\Gamma_1 = k_1 C_{CO^*} C_{NO^*} = k_1 k_2 k_3 P_{CO} P_{NO} C_*^2$$